

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: HRASTAR ET AL. GRP. ART UNIT: 2643
 APPL. NO.: 09/929,760 EXAMINER: NOT ASSIGNED
 FILED: AUGUST 14, 2001 DOCKET NO.: A-7599
 TITLE: TWO-TIERED AUTHORIZATION AND AUTHENTICATION FOR A
 CABLE DATA DELIVERY SYSTEM

NOVEMBER 6, 2001

RECEIVED

NOV 07 2001

Technology Center 2600

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
 Washington, D.C. 20231

Sir:

This information disclosure statement is filed in accordance with 37 C.F.R. §§ 1.56, 1.97, and 1.98, and specifically:

- ☒ under 37 CFR 1.97(b), or
 (within Three months of filing national application; or date of entry of international application; or before mailing date of first office action on the merits; whichever occurs last)
- ☐ under 37 CFR 1.97(c) together with either a:
☐ Statement Under 37 C.F.R. 1.97(e), or
☐ a \$240.00 fee under 37 CFR 1.17(p), or
 (After the CFR 1.97(b) time period, but before the final office action or notice of allowance, whichever occurs first)
- ☐ under 37 CFR 1.97(d) together with a:
☐ Statement under 37 CFR 1.97(e), and
☐ a petition under 37 CFR 1.97(d)(2), and
☐ a \$130.00 petition fee set forth in 37 CFR 1.17(i)(1).
 (Filed after final office action or notice of allowance, whichever occurs first, but before payment of the issue fee)

Please charge \$00.0 to deposit account 19-0761. At any time during the pendency of this application, please charge any fees required to Deposit Account 19-0761 pursuant to 37 CFR 1.25. The Commissioner is hereby requested to credit any overpayment to Deposit Account No. 19-0761.

- ☒ Applicant(s) submit herewith *Form PTO 1449 - Information Disclosure Citation* together with copies of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may or may not be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR 1.56. As required by 37 C.F.R. § 1.98(a), a legible copy of each document is provided.

The Cited Art includes:

- | | |
|-------------------|-------------------|
| 1. U.S. 3,985,962 | 3. U.S. 4,207,431 |
| 2. U.S. 4,186,380 | 4. U.S. 4,361,851 |

5. U.S. 4,475,123
6. U.S. 4,491,983
7. U.S. 4,528,589
8. U.S. 4,536,791
9. U.S. 4,577,224
10. U.S. 4,601,028
11. U.S. 4,633,462
12. U.S. 4,641,304
13. U.S. 4,672,533
14. U.S. 4,757,460
15. U.S. 4,771,391
16. U.S. 4,804,248
17. U.S. 4,823,386
18. U.S. 4,858,224
19. U.S. 4,907,224
20. U.S. 4,912,721
21. U.S. 4,980,886
22. U.S. 5,012,469
23. U.S. 5,014,125
24. U.S. 5,047,928
25. U.S. 5,050,213
26. U.S. 5,113,499
27. U.S. 5,131,041
28. U.S. 5,136,690
29. U.S. 5,142,690
30. U.S. 5,155,590
31. U.S. 5,157,657
32. U.S. 5,159,592
33. U.S. 5,166,930
34. U.S. 5,166,931
35. U.S. 5,181,107
36. U.S. 5,185,860
37. U.S. 5,195,092
38. U.S. 5,197,094
39. U.S. 5,208,665
40. U.S. 5,214,390
41. U.S. 5,226,120
42. U.S. 5,235,619
43. U.S. 5,239,540
44. U.S. 5,251,324
45. U.S. 5,261,044
46. U.S. 5,271,041
47. U.S. 5,276,789
48. U.S. 5,278,833
49. U.S. 5,287,351
50. U.S. 5,295,140
51. U.S. 5,295,244
52. U.S. 5,303,234
53. U.S. 5,327,554
54. U.S. 5,333,183
55. U.S. 5,347,304
56. U.S. 5,361,259
57. U.S. 5,384,777
58. U.S. 5,390,181
59. U.S. 5,404,505
60. U.S. 5,423,003
61. U.S. 5,423,006
62. U.S. 5,436,909
63. U.S. 5,440,555
64. U.S. 5,471,399
65. U.S. 5,473,599
66. U.S. 5,481,542
67. U.S. 5,483,631
68. U.S. 5,504,921
69. U.S. 5,515,361
70. U.S. 5,515,418
71. U.S. 5,517,488
72. U.S. 5,517,502

73. U.S. 5,517,618	107. U.S. 5,751,971
74. U.S. 5,521,925	108. U.S. 5,761,602
75. U.S. 5,533,108	109. U.S. 5,768,280
76. U.S. 5,534,913	110. U.S. 5,790,548
77. U.S. 5,535,206	111. U.S. 5,790,806
78. U.S. 5,535,403	112. U.S. 5,793,753
79. U.S. 5,553,095	113. U.S. 5,796,718
80. U.S. 5,553,287	114. U.S. 5,799,002
81. U.S. 5,572,640	115. U.S. 5,799,016
82. U.S. 5,586,121	116. U.S. 5,805,591
83. U.S. 5,594,798	117. U.S. 5,805,596
84. U.S. 5,604,528	118. U.S. 5,808,671
85. U.S. 5,608,446	119. U.S. 5,808,886
86. U.S. 5,610,910	120. U.S. 5,812,819
87. U.S. 5,612,959	121. U.S. 5,818,845
88. U.S. 5,644,706	122. U.S. 5,822,319
89. U.S. 5,650,994	123. U.S. 5,828,655
90. U.S. 5,654,746	124. U.S. 5,828,666
91. U.S. 5,675,732	125. U.S. 5,835,696
92. U.S. 5,701,465	126. U.S. 5,835,725
93. U.S. 5,703,795	127. U.S. 5,841,468
94. U.S. 5,706,277	128. U.S. 5,845,091
95. U.S. 5,708,655	129. U.S. 5,859,852
96. U.S. 5,708,961	130. U.S. 5,881,234
97. U.S. 5,710,884	131. U.S. 5,881,243
98. U.S. 5,712,897	132. U.S. 5,884,024
99. U.S. 5,720,025	133. U.S. 5,884,284
100. U.S. 5,721,780	134. U.S. 5,892,812
101. U.S. 5,724,492	135. U.S. 5,894,479
102. U.S. 5,729,682	136. U.S. 5,898,780
103. U.S. 5,737,311	137. U.S. 5,903,572
104. U.S. 5,737,316	138. U.S. 5,905,714
105. U.S. 5,751,706	139. U.S. 5,905,736
106. U.S. 5,751,707	140. U.S. 5,956,391

141. U.S. 5,959,972
142. U.S. 5,966,163
143. U.S. 5,999,970
144. U.S. 6,018,767
145. U.S. 6,028,860
146. U.S. 6,032,266
147. U.S. 6,049,826
148. U.S. 6,052,819
149. U.S. 6,055,224
150. U.S. 6,058,421
151. U.S. 6,065,049

152. U.S. 6,070,246
153. U.S. 6,073,178
154. U.S. 6,178,455
155. U.S. 6,208,656
156. U.S. 6,230,203
157. U.S. 6,249,523
158. U.S. 6,272,150
159. U.S. 6,282,208
160. U.S. 6,286,058
161. U.S. 6,295,298

162. FR002716319A1

163. Data-Over-Cable Service Interface Specifications; Radio Frequency Interface Specification; SP-RFI-I04-980724; Cable Television Laboratories, Inc.; 1997; pp 1-196
164. Data-Over Cable Service Interface Specifications; Cable Modem to Customer Premise Equipment Interface Specification; SP-CMCI-I02-980317; 1988; Cable Television Laboratories, Inc.; pps. 1-40
165. Data-Over Cable Service Interface Specifications; Cable Modem Telephony Return Interface Specification; SP-CMTRI-I01-970804; 1997; Cable Television Laboratories, Inc.; pps. 1-74
166. Data-Over Cable Service Interface Specifications; Radio Frequency Interface Specification; SPRFIV1.1-I01-990311; 1999; Cable Television Laboratories, Inc.; pps. 1-310
167. Data-Over Cable Technical Reports; Operations Support System Framework for Data Over Cable Services; TR-DOCS-OSSIW08-961016; 1996; MCNS Holdings, LP; pps. 1-20
168. Data-Over Cable Service Interface Specifications; Operations Support System Interface Specification; SP-OSSI-I02-990113; 1999; Cable Television Laboratories, Inc.; pps. 1-26
169. Data-Over Cable Service Interface Specifications; Operations Support System Interface Specification Radio Frequency Interface; SP-OSSI-RFI-I03-990113; 1999; Cable Television Laboratories, Inc.; pps. 1-29
170. Data-Over Cable Service Interface Specifications; Operations Support System Interface Specification Baseline Privacy Interface MIB; SP-OSSI-BPI-I01-980331; 1998; pps. 1-33
171. Radio Frequency (RF) Interface Management Information Base for MCNS Compliant RF Interfaces draft-ietf-ipcdn-rf-interface-mib-04.txt; May 22, 1998; Guenter Roeck (editor); pps. 1-55
172. Cable Device Management Information Base for MCNS Complaint Cable Modems and Cable Modem Termination Systems draft-ietf-ipcdn-cable-device-mib-04.txt; May 22, 1998; Guenter Roeck (editor); pps. 1-32
173. Baseline Privacy Interface Management Information Base for MCNS Compliant Cable Modems and Cable Modem Termination Systems; R. Woundy; 1/17/99; pps. 1-35
174. Logical IP Subnetworks over IEEE 802.14 Services; Mark Laubach; 3/13/98; pps. 1-13

175. A Distribute Queueing Random Access Protocol for a Broadcast Channel; Wenxin Xu and Graham Campbell; Illinois Institute of Technology (Comp. Science Dept.); pps. 1-9
176. CBR Channels on a DQRAP-based HFC Network; Chien-Ting Wu, Graham Campbell; Illinois Institute of Technology (Comp. Science Dept.); pps. 1-14
177. Interleaved DQRAP with Global TQ; Chien-Ting Wu, Graham Campbell; Illinois Institute of Technology (Comp. Science Dept.); pps 1-27
178. The EXTENDED DQRAP (XDQRAP) ALGORITHM; Chien-Ting Wu, Graham Campbell; Illinois Institute of Technology (Comp. Science Dept.); 12/9/1994; pps. 1-4
179. Extended DQRAP (XDQRAP) A Cable TV Protocol Functioning as a Distributed Switch; Chien-Ting Wu & Graham Campbell; Illinois Institute of Technology (Comp. Science Dept.); pps. 1-7
180. A Review of Contention Resolution Algorithms for IEEE 802.14 Networks; Nada Glomie; Yves Saintillan, & David H. Su; National Institute of Standards and Technology; pps. 1-11
181. A Review of Contention Resolution Algorithms for IEEE 802.14 Networks; Nada Glomie, Yves Saintillan, & David H. Su; National Institute of Standards and Technology; pps. 1-12
182. On IEEE 802.14 Medium Access Control Protocol; Ying-Dar Lin; 1998; pps. 1-13
183. On IEEE 802.14 Medium Access Control Protocol; Ying-Dar Lin; 1998; pps. 1-11
184. On IEEE 802.14 Medium Access Control Protocol; Ying-Dar Lin; 1998; pps. 1-10
185. Hybrid-Fiber Coax; Hung Nguyen and Felix Yao; 4/22/96; pps. 1-11
186. Cable Data Modem Performance Evaluation, A Primer for Non-Technical Readers; Cable Television Laboratories, Inc.; 11/15/96; pps. 1-8
187. High Speed Cable Modems, Including IEEE 802.14 Standards; Albert A. Azzam; Chapters 5, 6
188. Cable Device Management Information Base for DOCSIS Compliant Cable Modems and Cable Modem Termination Systems; Michael St. Johns; 3/30/99; pps. 1-54
189. Radio Frequency (RF) Interfaces Management Information Base for MCNS/DOCSIS Compliant RF Interfaces; Mike St. Johns, (Editor); 2/17/99; pps. 1-67
190. Telephony-Return Interface (TRI) Management Information Base for DOCSIS-compliant Telephony-Return Cable Modems and Cable Modem Termination Systems; S. Adiraju, J. Fijolek; 4/2/99; pps. 1-27
191. Data Over Cable System Quality of Service Management Information Base (DOCSIS-QOS MIB); Mike Patrick; J. Harvey; Motorola ING; 6/25/99; pps. 1-43
192. Docsis 1.1 IGMP MIB; H. Abramson, Motorola; June 1999; pps. 1-13
193. Publications and Technical Reports of Dolors Sala - Home Page; pps. 1-6
194. Scheduling Disciplines for HFC Systems: What can we learn from ATM scheduling?; Dolors Sala, John O. Limb; GA Tech; pps. 1-6
195. A Protocol for Efficient Transfer of Data over Fiber/Cable Systems; Dolors Sala, John O. Limb; GA Tech; pps. 1-8
196. MAC Protocols for Multimedia Data over HFC Architecture; Dolors Sala Batlle; 10/27/95; pps. 1-28
197. An Access Protocol to Support Multimedia Traffic Over Hybrid Fiber/Coax Systems; John O. Limb, Dolors Sala; pps. 1-6

198. Simulation of the Performance of XDQRAP under a Range of Conditions; John O. Limb, Dolores Sala, Jason Collins, David Hartman, Daniel Howard; pps. 1-10
199. Interleaved DQRAP with Global TQ; Chien-Ting Wu, Graham Campbell; Illinois Institute of Technology, CS Dept.; 1/8/95; pps. 1-26
200. Data Link Protocols; Uyless Black; Bell Atlantic Education Services; PTR Prentice Hall; New Jersey; 1993; pps. 141-159
201. ATM Foundation for Broadband Networks; Vol. 1; Ed. 2; Uyless Black; Prentice Hall; NJ; 1999; pps. 260-299
202. The V Series Recommendations; Ed. 2; Uyless Black; McGraw-Hill, Inc.; 1995; pps. 169-184
203. Frame Relay Networks; Ed. 2; Uyless Black; McGraw-Hill, Inc.; 1996; pps. 159-176
204. ISDN; Ed. 3; Gary C. Kessler & Peter V. Southwick; McGraw-Hill, Inc.; 1997; pps. 111-128
205. ISDN & SS7: Architecture for Digital Signaling Networks; Uyless Black; Prentice Hall; NJ; 1997; pps. 31-47
206. ISDN and Broadband ISDN with Frame Relay and ATM; Ed. 4; William Stallings; Prentice Hall; NJ; 1999; pps. 181-343; pps. 312-343
207. Extended DQRAP (XDQRAP); Chien-Ting Wu; Graham Campbell; Illinois Institute of Technology (Comp. Sci. Dept.); Jan. 8, 1995; pps. 1-4
208. Dynamic Host Configuration Protocol; R. Droms; Network Working Group Request for Comments; 1993; pps. 1-39
209. Cisco Hot Standby Router Protocol (HSRP); T. Li, et al.; Network Working Group Request for Comments; 1998; pps. 1-17
210. Address Allocation for Private Internets; Y. Rekhter, et al.; Network Working Group Request for Comments; 1994; pps. 1-8
211. Network 10 Considered Harmful (Some Practices Shouldn't be Codified); E. Lear, et al.; Network Working Group Request for Comments; 1994; pps. 1-8
212. Unique Addresses are Good; E. Gerich; Network Working Group Request for Comments; 1995; pps. 1-3
213. Address Allocation for Private Internets; Y. Rekhter, et al.; Network Working Group Request for Comments; 1996; pps. 1-9
214. The IP Network Address Translator (NAT); E. Egevang, et al.; Network Working Group Request for Comments; 1994; pps. 1-10
215. IP Network Address Translator (NAT) Terminology and Considerations; P. Srisuresh, et al.; Network Working Group Request for Comments; 1999; pps. 1-24
216. Load Sharing Using IP Network Address Translation (LSNAT); P. Srisuresh, et al.; Network Working Group Request for Comments; 1998; pps. 1-18
217. DNS Extensions to Network Address Translators (DNS_ALG); P. Srisuresh, et al.; Network Working Group Request for Comments; 1999; pps. 1-29
218. Security Model with Tunnel-Mode IPsec for NAT Domains; P. Srisuresh, et al.; Network Working Group Request for Comments; 1999; pps. 1-11

219. Network Address Translation - Protocol Translation (NAT-PT); G. Tsirtsis, et al.; Network Working Group Request for Comments; 2000; pps. 1-21
220. Stateless IP/ICMP Translation Algorithm (SIIT); E. Nordmark; Network Working Group Request for Comments; 2000; pps. 1-26
221. FTP Extensions for IPv.6 and NATs; M. Allman, et al.; Network Working Group Request for Comments; 1998; pps. 1-8
222. PPP Bridging Control Protocol (BCP); F. Baker et al.; Network Working Group Request for Comments, June 1994; pps. 1-28
223. TCP/IP Illustrated, Volume 1 - The Protocols; W. Richard Stevens; Addison-Wesley Longman, Inc.; January 1999; Chapters 1, 2, 3, 4, 9, 10, 11, 16, 25

- ☐ A concise explanation of the relevance of foreign language patents, foreign language publications and other foreign language information listed on PTO Form 1449, as presently understood by the individual(s) designated in 37 CFR 1.56(c) most knowledgeable about the content is given on the attached sheet, or where a foreign language patent is cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action which indicates the degree of relevance found by the foreign office is listed on the form PTO 1449 and is enclosed herewith.

The following rights are reserved by the Applicant(s): the right to establish the patentability of the claimed invention over any of the listed documents should they be applied as reference, and/or the right to prove that some of these documents may not be prior art, and/or the right to prove that some of these documents may not be enabling for the teachings they purport to offer.

This statement should not be construed as a representation that an exhaustive search has been made, or that information more material to the examination of the present application does not exist. The Examiner is specifically requested not to rely solely on the materials submitted herewith. The Examiner is requested to conduct an independent and thorough review of the documents, and to form independent opinions as to their significance.

It is requested that the information disclosed herein be made of record in this application and that the Examiner initial and return a copy of the enclosed PTO-1449 to indicate the documents have been considered.

Respectfully Submitted,

SEND CORRESPONDENCE TO:

Scientific-Atlanta, Inc.
Intellectual Property Dept. MS 4.3.518
5030 Sugarloaf Parkway
Lawrenceville, GA 30044

By:

Kenneth M. Massaroni

KENNETH M. MASSARONI

Attorney of Record

Reg. No.: 33,015

Phone: (770) 236-4717

Fax No.: (770) 236-4806

Certificate of Hand Delivery

I, Jennifer Lohse, hereby certify that a copy of this Information Disclosure Statement with all attachments was hand delivered to Group Art Unit #2643 (Room 1B03 - Mailroom) at the United States Patent and Trademark Office on November 7th, 2001.

Jennifer Lohse
Signature

Jennifer Lohse
Printed Name